

FORM PTO-1390		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTORNEY'S DOCKET NUMBER 4444-024
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371			U.S. APPLICATION NO. (if known, see 37 CFR 1.5) 09/890300
INTERNATIONAL APPLICATION NO. PCT/FR00/00224	INTERNATIONAL FILING DATE 01 February 2000 (01.02.2000)	PRIORITY DATE CLAIMED 01 February 2000 (01.02.2000) 02 February 1999	
TITLE OF INVENTION SERVICE TRANSMISSION SYSTEM RELATED TO RELEVANT GEOGRAPHICAL ZONES AND RECEIVER DESIGNED TO BE USED WITH SAID TRANSMISSION SYSTEM			
APPLICANT(S) FOR DO/EO/US Laurent MAINARD and Oliver PERRAULT			
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:			
<ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> This is a FIRST submission of items concerning a filing under 35 U.S.C. 371. 2. <input type="checkbox"/> This is a SECOND or SUBSEQUENT submission of items concerning a filing under 35 U.S.C. 371. 3. <input type="checkbox"/> This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1). 4. <input checked="" type="checkbox"/> A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date. 5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2)) <ol style="list-style-type: none"> a. <input checked="" type="checkbox"/> is transmitted herewith (required only if not transmitted by the International Bureau). b. <input type="checkbox"/> has been transmitted by the International Bureau. c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US) 6. <input checked="" type="checkbox"/> A English translation of the International Application into English (35 U.S.C. 371(c)(2)). <ol style="list-style-type: none"> a. <input checked="" type="checkbox"/> is attached hereto b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154 371 (c)(2) 7. <input checked="" type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) <ol style="list-style-type: none"> a. <input checked="" type="checkbox"/> are transmitted herewith (required only if not transmitted by the International Bureau). b. <input type="checkbox"/> have been transmitted by the International Bureau. c. <input type="checkbox"/> have not been made; however, the time limit for making such amendment has NOT expired. d. <input type="checkbox"/> have not been made and will not be made. 8. <input checked="" type="checkbox"/> A English translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)). 9. <input type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). 10. <input checked="" type="checkbox"/> A English translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)). 			
Items 11. to 20. below concern other document(s) or information included:			
<ol style="list-style-type: none"> 11. <input checked="" type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98. 12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included. 13. <input checked="" type="checkbox"/> A FIRST preliminary amendment. 14. <input type="checkbox"/> A SECOND or SUBSEQUENT preliminary amendment. 15. <input type="checkbox"/> A substitute specification. 16. <input type="checkbox"/> A change of power of attorney and/or address letter. 17. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 35 U.S.C. 1.821-1.825 18. <input type="checkbox"/> A second copy of the published international application under 35 U.S.C. 154(d)(4) 19. <input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4) 20. <input type="checkbox"/> Other items or information. 			

T02207 00E05880

U.S. APPLIC. NO. (if known, see 37 CFR 1.5)

09/890300

INTERNATIONAL APPLICATION NO.

PCT/FR00/00224

ATTORNEY'S DOCKET NUMBER

4444-024

21. ☒ The following fees are submitted:**Basic National Fee (37 CFR 1.492(a)(1)-(5)):**

Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO \$ 1000.00

International Search fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO and JPO \$ 860.00

International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO \$ 710.00

International preliminary examination fee paid to USPTO (37 CFR 1.482) but all claims did not satisfy provisions of PCT Article 33(1)-(4) \$ 690.00

International preliminary examination fee paid to USPTO (37 CFR 1.482) And all claims satisfied provisions of PCT Article 33(2)-(4) \$ 100.00

ENTER APPROPRIATE BASIC FEE AMOUNT =

CALCULATIONS PTO USE ONLY

\$ 860.00

Surcharge of **\$130.00** for furnishing the oath or declaration later than ☒ 20 ☐ 30 months from the earliest claimed priority date (37 CFR 1.492(e)).

\$ 0.00

CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE
Total Claims	6 - 20 =		X \$18.00
Independent Claims	1 - 3 =		X \$78.00
Multiple dependent claim(s) (if applicable)			+ \$260.00

\$ 0.00

\$ 0.00

\$ 0.00

TOTAL OF ABOVE CALCULATIONS =

\$ 860.00

☐ Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 1/2.

\$ 0.00

SUBTOTAL =

\$ 860.00

Processing fee of **\$130.00** for furnishing the English translation later than the ☐ 20 ☐ 30 months from the earliest claimed priority date (37 CFR 1.492(f)).

\$ 0.00

TOTAL NATIONAL FEE =

\$ 860.00

Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). **\$40.00** per property

\$ 0.00

TOTAL FEES ENCLOSED =

\$ 860.00

Amount to be: \$

refunded \$

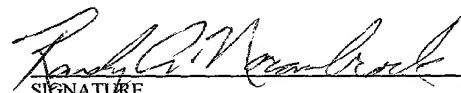
charged \$

- a. ☐ A check in the amount of \$ XXX.XX to cover the above fees is enclosed.
- b. ☐ Please charge my Deposit Account No. XXX in the amount of \$ XXX to cover the above fees. A duplicate copy of this sheet is enclosed.
- c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 07-1337. A duplicate copy of this sheet is enclosed.
- c. ☒ Fees are to be charged to a credit card **WARNING:** information on this form may be public. **Credit card information should not be included on this form.** Provide credit card information and authorization on PTO-2038.

NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:

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 SIGNATURE
 Randy A. Noranbrock
 NAME
 42,940
 REGISTRATION NUMBER

FOOTNOTES

27 JUL 2001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of :
 :
 Laurent MAINARD et al. :
 :
 Serial No. Not yet assigned : Group Art Unit: Not yet assigned
 :
 Filed: herewith : Examiner: N/A

For: SERVICE TRANSMISSION SYSTEM RELATED TO RELEVANT GEOGRAPHICAL
 ZONES AND RECEIVER DESIGNED TO BE USED WITH SAID TRANSMISSION
 SYSTEM

PRELIMINARY AMENDMENT

Assistant Commissioner For Patents
 Washington, D.C. 20231

Dear Sir:

Preliminary to examination of the above-referenced application, please amend the application:

IN THE CLAIMS:

Please amend claims 3 and 6 as follows:

3. (Amended) Services transmission system as claimed in claim 1 characterized in that each relevant geographic zone is defined by a set of geometric features.

6. (Amended) System transmitting services as claimed in claim 1 characterized in that some relevant zones are included rigorously within other relevant zones.

REMARKS

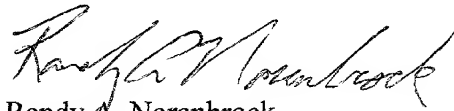
The above-referenced application is amended to delete the multiple dependencies of claims

3 and 6 to avoid the multiple dependent claim filing fee.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached pages are captioned "Marked-Up Version Showing Changes".

Respectfully submitted,

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CLAIMS

1. A transmission system of services linked to relevant geographic zones and comprising at least one transmitter (1,2,3,4) transmitting said services into said relevant zones (11,32; 21,22,23,32; 31,32; 41,42) and a receiver (100) comprising a receiver sub-assembly (110) receiving said services, further a locating unit (130) determining the geographic position of said receiver (100) and a switching unit (140) to switch said receiver sub-assembly (110) so that latter shall receive the service(s) linked to the relevant zone(s) corresponding to the geographic position ascertained by said locating unit (130),

characterized in that

said transmission system or each transmitter (1;2;3;4) simultaneously transmits the services linked to the relevant zones (11,32; 21,22,23,32; 31,32; 41,42) overlapping a portion of its coverage at the same time as, on one hand, the descriptions of the relevant zones (11,32; 21,22,23,32; 31,32; 41,42) and the addresses of said services linked to said relevant zones (11,32; 21,22,23,32; 31,32; 41,42), and on the other hand, the descriptions and the addresses of the services for the relevant zones (21,22,23; 11,31,41,42; 21,22, 23, 41, 42; 21, 22, 23, 31) which are covered by the coverage of the coverage zones (20; 10,30,40; 20,40; 20 ,30) neighboring its coverage (10; 20; 30; 40).

2. Services transmission system as claimed in claim 1, characterized in that at least one relevant geographic zone among said zones is defined being overlapping at least one neighboring relevant zone.

3. Services transmission system as claimed in ~~either of~~ claims ~~1~~ and 2, characterized in that each relevant geographic zone is defined by a set of geometric features.

4. Services transmission system as claimed in claim 3, characterized in that at least one relevant geographic zone is determined by a closed set of geometric features which define one or more polygons.

5. System transmitting services as claimed in claim 4, characterized in that at least one of said polygons is coincident by at least one of its apices with road markers.

6. System transmitting services as claimed in ^{claim 1} [one of the above claims] characterized in that some relevant zones are included rigorously within other relevant zones.

AMENDED SHEET

SERVICE TRANSMISSION SYSTEM
RELATED TO RELEVANT GEOGRAPHICAL ZONES
AND RECEIVER DESIGNED TO BE USED WITH SAID TRANSMISSION SYSTEM.

[01] The present invention relates to a transmission system for relevant geographic zones and to a receiver being used together with said transmission system.

[02] The technical field of the invention relates to transmitters that are set-up in predetermined zones and transmit information closely applying to the geographically locations of said zones and of which the interpretation also remains tied to the geographic location of the receivers of such information. Illustratively such information may relate to road events such as a traffic jams and is significant only when location specific and if the end user of said receiver is enabled to easily determine whether he/she is affected or not.

[03] Broadcasting services providing information of road traffic already are available in Europe or are being standardized. As regards broadcast services, they are based on an RDS/TMC standard.

[04] Switching from a service assigned to a first zone to a service assigned to a second zone is implemented by switching the receiver from a transmitter of the first zone to a transmitter of a second zone, such switching being carried on the basis on one hand of location data obtained from a locating system such as the global positioning system GPS and on the other hand on data about the accurate geographic bounds of those services of which the broadcasts are likely to be received. such data are permanently stored in the receiver.

[05] Accordingly, while a receiver is set at transmitter broadcasting data to a first zone, when a vehicle passes from said first zone into a second zone, the receiver shall know what services it has access to and then will seek the second zone data at the frequency of another transmitter.

CONFIRMATION COPY

[06] Regardless of the geographic-content services, systems such as the one known as DAB (Digital Audio Broadcast) allow broadcasting data specifying the location of neighboring transmitters as well as their coverage zone crudely represented by a mere rectangle, however omitting accurate disclosure of contents of broadcast services.

[07] The drawback of the known method of broadcasting information about such relevant zones is the present impossibility of transmitting information relating to an accurately defined relevant zone.

[08] Either this zone transmission is restricted to crudely estimating the range of a transmitter (regardless of information content) to allow switching between transmitters, or only the global range of the service will be indicated by one or more coarse regional parameters ("national", "regional"...).

[09] Another drawback is that the relevant zones and hence the zones where switching will occur are stored in the receiver but cannot be automatically radio-loaded in relation to receiver moves or to the data incoming at this receiver. Therefore a new service requiring accurate switching based on already extant services cannot be launched unless the receivers be updated.

[10] Accordingly it is the objective of the present invention to create a services transmission system free of the above described drawbacks.

[11] For that purpose a services transmission system of the invention relating to given geographic zones comprises at least one transmitter to transmit said services to said zones and one receiver fitted with a receiver sub-assembly accepting said service information, a locating unit to determine the geographic position of said receiver and a switching unit to switch said receiver sub-assembly to connect to the service(s) linked to the relevant zone(s) corresponding to the geographic position that was determined by said locating unit.

[12] Said services transmission system is characterized in that each transmitter will simultaneously transmit the services linked to the relevant zones part of its coverage and the description of the relevant zones and the addresses of said services as well as the description of the relevant zones and the addresses of the services of the neighboring zones to those zones which partly overlap said portion of its coverage.

[13] In another feature of the invention, at least one relevant geographic zone among said relevant zones is defined being overlapping at least one neighboring relevant zone. Illustratively each relevant geographic zone is defined by a set of geometric features, advantageously by a closed set of lines defining one or several polygons. Said at least one polygon may be configured with at least one of its apices at given road markers. Some relevant zones also may be included rigorously in other relevant zones.

[14] In another feature of the invention, and in addition to the description of the relevant zones and the addresses of said services, each transmitter transmits optional information on data density and service quality.

[15] The present invention also relates to a receiver receiving services linked to relevant geographic zones and transmitted by at least one transmitter. This receiver is characterized in that it comprises a locating unit determining said receiver's geographic position, a receiver sub-assembly able to simultaneously receive the services linked to the zones in which it is located together with the descriptions of the relevant zones and the addresses of said services plus the descriptions of the relevant zones and the service addresses of the zones neighboring to its coverage, and a switching unit to receive said descriptions and to switch said receiver sub-assembly in order that it receive the service(s) linked to the relevant zone(s) corresponding to the geographic zone determined by said locating unit.

[16] In another feature of the invention, said receiver also includes means giving the user the choice of driving the switching unit, in particular when the geographic position determined by said locating unit corresponds to the boundaries of a relevant zone included in one or more relevant zones.

[17] In another feature of the invention, said receiver is designed to receive -- in addition to the description of the relevant zones and the addresses of said services -- also additional information of data density and service quality. In this event said receiver includes means enabling the user to drive the switching unit with regard to a selection of data density and/or service quality so that said switching unit be able to switch said receiver sub-assembly to receive the service(s) linked to the relevant zone(s) of which the data density and/or the service quality shall correspond to said user's selection.

[18] In another feature of the invention, the locating unit is fitted with an extrapolation function allowing knowing at any instant the vehicle position based on the previously stored coordinates.

[19] The above features of the invention as well as further ones are elucidated in the following description of an illustrative embodiment of the invention and in relation to the attached drawings.

[20] **Fig. 1** is a schematic of a services broadcasting system of the present invention, and

[21] **Fig. 2** is a summary schematic of a services broadcasting system receiver of the present invention.

[22] The dotted lines in Fig. 1 represent the coverage zones 10, 20, 30 and 40 of resp. transmitters 1 through 4.

[23] Transmitter 1 transmits one or several services of which the relevant geographic zone 11 is shown in Fig. 1. Be it borne in mind that several services may be transmitted to one relevant

geographical zone. Transmitter 2 transmits services to its relevant zones 21, 22 and 23. Transmitter 3 transmits at least one service to a relevant zone 31. Transmitter 4 transmits services to relevant zones 41 and 42.

[24] A relevant zone 32 is used for at least one service transmitted simultaneously by the transmitters 1, 2, 3 and 4.

[25] In the description herein, the term "transmission" is taken broadly and includes broadcasting.

[26] It is understood that, by being outside one of the given relevant zones, the services linked to said zone(s) are of no interest to the user. Illustratively this applies to road traffic services.

[27] Be it noted that the relevant geographic zones of the services transmitted by a transmission system are not mandatorily within the coverage of said transmitters. This is the case in Fig. 1 (for instance the relevant geographic zone 31 is within the coverage 30 of the transmitter 3) except for the relevant zone 32.

[28] Each relevant geographic zone is determined by one or a set of features defining a particular geometric shape. These may be features defining one or a set of circles, one or a set of ellipses, also a set of circles, lines, ellipses etc.

[29] Advantageously at least one, or each relevant zone illustratively is defined by a closed set of lines defining in this manner one or more polygons.

[30] In order to simplify defining the polygons by means of the coordinates generally used in broadcasting road traffic services, a polygon which defines a relevant geographic zone will be situated by at least one of its apices on road markers (mile signs, toll stations...).

[31] Also, to allow adequate service switching time, the zone topologies are such that two neighboring zones may overlap.

[32] In the case of increasing-density services, the zones are defined so that some of them, for instance zone 23 in Fig. 1, shall be situated rigorously within other zones, in this case within zone 22.

[33] In addition to transmitting services to the relevant zones it covers, each transmitter 1 through 4 transmits the descriptions of the relevant zones and of the addresses of said services and furthermore transmits the descriptions of the relevant zones and the service addresses of those zones which are neighboring to the coverage zones of the particular transmitter.

[34] Such descriptions may be complemented by optional information relating to data density and service quality data.

[35] In Fig. 1 for instance transmitter 2 transmits the services for the relevant zones 21, 22 and 23 and 32, furthermore the definitions of said services, that is at least the description of said zones 21, 22 and 23 and 32 and the addresses of the corresponding services. However it also transmits the descriptions of the relevant zones 11, 31, 41 and 42 and the addresses of the corresponding services.

[36] Illustratively a traffic information service relating to the Paris outer suburbs is available from a digital audio broadcast (DAB) system. This service is defined by a relevance zone subtended by the inside of a polygonal line linking the toll stops of main highways leaving Paris and by a service address (frequency band and service number).

[37] Another traffic information service is linked to the A6 highway between the Fleury and Lyons tollbooths on a synchronous FM network. This service will integrate a description of the relevant zone being within a polygonal line along the contours of A6 between the two preceding points and a service address (for instance the FM and a service number).

[38] Illustratively zone 32 is one of synchronized broadcasting, that is being of the same frequency along the itinerary, when changing transmitters but without switching the receiver.

[39] Advantageously the neighboring relevant zones do overlap. For instance zone 22 overlaps zones 11 and 31 in Fig. 1.

[40] Fig. 2 shows a receiver 100 to implement the method of the invention. Said receiver comprises a receiver sub-assembly 110 to receive the transmissions from the services transmitters and to reproduce them by a reproducing device 120, a locating unit 130 to feed the vehicle coordinates C to a switching unit 140. The receiver sub-assembly 110 also feeds the description D of the relevant zones to the switching unit 140. If the coordinates C from the locating unit 130 correspond to the boundaries of a given relevant zone defined in the signal D, said switching unit will switch the receiver sub-assembly 110 to receive the service linked to that relevant zone.

[41] When the coordinates fed from the locating unit 130 correspond to the boundaries of a relevant zone which is within one or more other relevant zones, the user may drive the switching unit (signal U) to select either of said services.

[42] In one embodiment variation and when the receiver sub-assembly 110 is designed to receive -- in addition to the description of the relevant zones and the addresses of said services -- optional information about data density and service quality, the user also may drive the switching unit to select the data density and/or the service quality in such a way that said switching unit be able to switch said receiver sub-assembly for the purpose of receiving the service(s) linked to the relevant zone(s) of which the data density and/or the service quality correspond to the selection of said user. It will be borne in mind that to the extent there is overlap of the present relevant zone and the new one, the time of switching may be delayed so as to be a less abrupt transition for the user.

[43] Moreover, if the locating unit 130 provides the vehicle coordinates at substantially long time intervals, said unit may be fitted with an extrapolating function allowing ascertaining at any time the vehicle position based on the previously stored coordinates.

[44] As regards Fig. 1, a user moving along the line xx' receives the information from the transmitter 1 and consequently will receive the service(s) of which zone 11 is the relevant zone. The receiver unit 110 receives not only the description of the zone 11 and of the corresponding service(s), but also the description of the zones 21, 22, 23 and 32 and of the corresponding services.

[45] When entering the relevant zone 32, the receiver sub-assembly 110 may receive either the services linked to the zone 11 or those linked to the zone 32. The selection shall be made by the user, either directly or by specifying user-selected criteria in the manner described above.

[46] Upon entry into the relevant zone 22, the switching unit 140 switches the receiver sub-assembly 110 on one hand toward the transmitter 2 and on the other hand toward the service(s) linked to the zone 22 or the zone 32. Delay in switching may take place.

[47] Once within the coverage of zone 22 or zone 32, the receiver sub-assembly 110 receives the service corresponding to that zone, further the description of this relevant zone 22, also that of the zones 21 and 23, as a result of which, at entry into the zone 23, the switching unit 140 is able to switch the receiver sub-assembly toward the zone 23. However, said zone 23 being within the zone 22, the user may intervene to dictate his choice.

[48] Illustratively the zone 22 may define "Brittany" whereas the zone 23 included in zone 22 will define a more specific, versatile and targeted service, namely (city of) "Rennes", (therein), such as travel time, parking lots etc.

[49] Be it further borne in mind that when the zones 22 and 23 are covered, the receiver sub-assembly 110 also receives the definition of the zones 11, 21, 31 and 41 (and possibly zone 42).

CLAIMS

1. A transmission system of services linked to relevant geographic zones and comprising at least one transmitter (1,2,3,4) transmitting said services into said zones (11,12,13,14) and a receiver (100) comprising a receiver sub-assembly (110) receiving said services, further a locating unit (130) determining the geographic position of said receiver (100) and a switching unit (140) to switch said receiver sub-assembly (110) so that latter shall receive the service(s) linked to the relevant zone(s) corresponding to the geographic position ascertained by said locating unit (130),

characterized in that

said transmission system or each transmitter simultaneously transmits the services linked to the relevant zones (11,12,13,14) overlapping a portion of its coverage and the descriptions of the relevant zones (11,12,13,14) and also the addresses of the services for the zones neighboring to said zones overlapping said part under its coverage.

2. Services transmission system as claimed in claim 1, characterized in that at least one relevant geographic zone among said zones is defined being overlapping at least one neighboring relevant zone.

3. Services transmission system as claimed in either of claims 1 and 2, characterized in that each relevant geographic zone is defined by a set of geometric features.

4. Services transmission system as claimed in claim 3, characterized in that at least one relevant geographic zone is determined by a closed set of geometric features which define one or more polygons.

5. Services transmission system as claimed in claim 4, characterized in that at least one of said polygons is coincident by at least one of its apices with road markers.

6. Services transmission system as claimed in one of the above claims, characterized in that some relevant zones are included rigorously within other relevant zones.

7. Services transmission system as claimed in one of the above claims, characterized in that in addition to describing the relevant zones and the addresses of said services, each transmitter transmits optional information about data density and service quality.

8. A receiver receiving the services linked to relevant geographic zones and transmitted by at least one transmitter,

characterized in that

it comprises a locating unit (130) determining the geographic position of said receiver (100), furthermore a receiver sub-assembly (110) which, simultaneously with the services linked to the zones within it is located, also receives the descriptions of the relevant zones and the addresses of the services of the zones neighboring to the zones being covered, and a switching unit (140) receiving said descriptions and switching said receiver sub-assembly (110) so that latter shall receive the service(s) linked to the relevant zone(s) corresponding to the geographic position ascertained by said locating unit (130).

9. Receiver as claimed in claim 8, characterized in that it includes means whereby the user drives the switching unit according to his selection, in particular when the

geographic position determined by said locating unit (130) corresponds to the boundaries of a relevant zone which is situated within one or more other relevant zones.

10. Receiver as claimed in either of claims 8 and 9, characterized in that in addition to receiving the description of the relevant zones and the addresses of said services, it is also designed to receive optional information on density data and service quality and in that it comprises means for the user's selection of data density and/or service quality applied to the switching unit in such manner that said switching unit shall be able to switch said receiver sub-assembly to receive the service(s) linked to the relevant zone(s) of which the data density and/or the service quality correspond to said user's selection.

11. Receiver as claimed in claim 8, 9 or 10, characterized in that the locating unit (130) is fitted with an extrapolation function allowing instantaneously knowing the vehicle position based on the previously sorted coordinates.

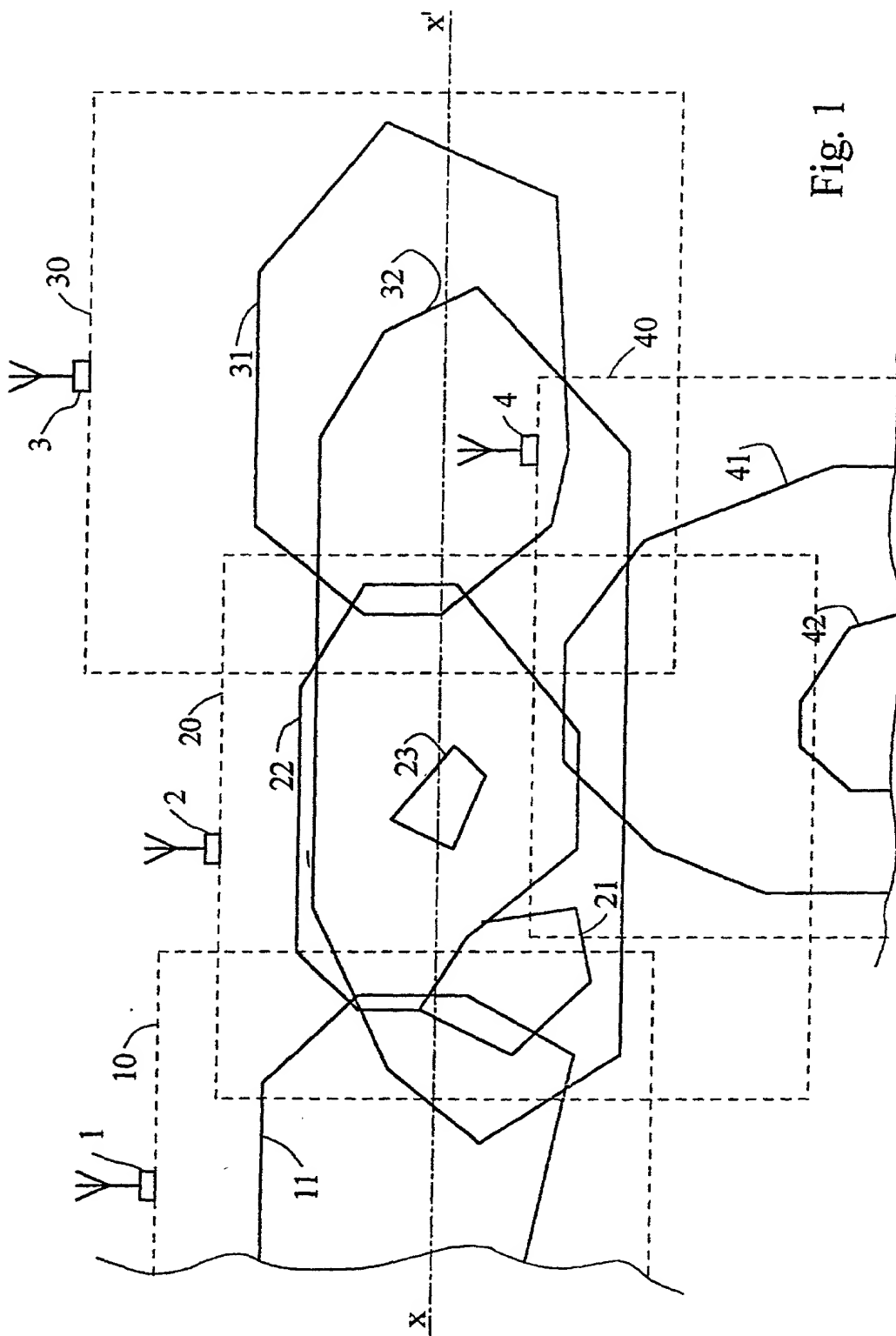


Fig. 1

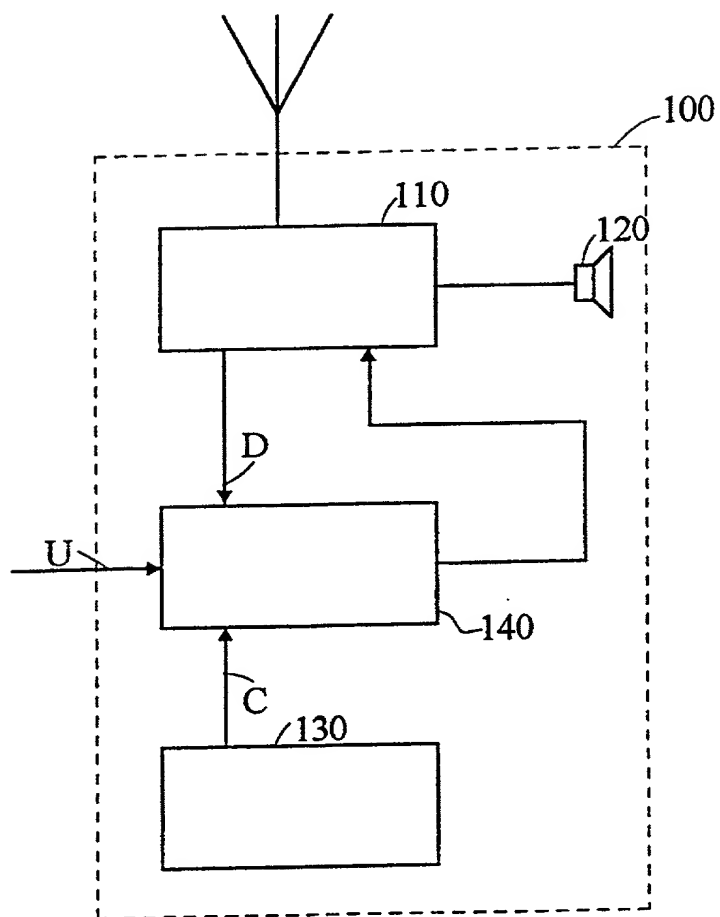


Fig. 2

DECLARATION FOR PATENT APPLICATION AND APPOINTMENT OF ATTORNEY

As a below-named inventor, I hereby declare that my residence, post office address and citizenship are as stated below next to my name; I believe that I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention (Design, if applicable) entitled: **SERVICE TRANSMISSION SYSTEM RELATED TO RELEVANT GEOGRAPHICAL ZONES AND RECEIVER DESIGNED TO BE USED WITH SAID TRANSMISSION SYSTEM**

the specification of which (check one):

- ☐ is attached hereto.
☒ was filed on July 27, 2001 as Application Serial No. 09/890,300 ✓
☒ was filed on February 1, 2000 as International Application (PCT) No. PCT/FR00/00224, ✓ and was amended on _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment(s) referred to above. I acknowledge the duty to disclose information which is material to the examination of this application in accordance with *Title 37, Code of Federal Regulations, § 1.56*. I hereby claim foreign priority benefits under *Title 35, United States Code § 119* of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which the priority is claimed.

PRIOR FOREIGN APPLICATION(S)

NUMBER	COUNTRY	DAY/MONTH/YEAR FILED	PRIORITY CLAIMED
99/01412	FRANCE	02.02.99	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
99/04113	FRANCE	29.03.99	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

I hereby claim the benefit under *Title 35, United States Code, § 120* of any United States application(s) or PCT international application(s) designating The United States of America listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of *Title 35, United States Code, § 112*, I acknowledge the duty to disclose material information as defined in *Title 37, Code of Federal Regulations, § 1.56* which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application:

APPLICATION NUMBER	FILING DATE	STATUS (Patented, Pending or Abandoned)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine, or imprisonment, or both, under *Section 1001 of Title 18 of the United States Code*, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

POWER OF ATTORNEY: I (We) hereby appoint as my (our) attorneys, with full powers of substitution and revocation, to prosecute this application and transact all business in the Patent and Trademark Office connected therewith: Allan M. Lowe, Registration Number 19,641; Benjamin J. Hauptman, Registration Number 29,310; Michael G. Gilman, Registration Number 19,114; Kenneth M. Berner, Registration Number 37,093; and Randy A. Noranbrock, Registration Number 42,940.

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I hereby authorize the U.S. attorneys and agents named herein to accept and following instructions from CABINET LE GUEN & MAILLET as to any actions to be taken in the U.S. Patent and Trademark Office regarding this application without direct communication between the U.S. attorneys and the undersigned. In the event of a change in the person(s) from whom instructions may be taken, the U.S. attorneys will be so notified by the undersigned.

<input checked="" type="checkbox"/> See following page(s) for additional joint inventors. Full Name of First or Laurent MAINARD		Citizenship	French ✓
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DECLARATION FOR PATENT APPLICATION AND APPOINTMENT OF ATTORNEY

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